We Claim:

1.    A method for displaying an image through a microlens sheet, comprising steps of:

inputting a physical constraint data into a retrievable data storage device;

inputting an image quality data into a retrievable data storage device;

retrieving the physical constraint data and the image quality data into a programmable data processor;

calculating a microlens specification data based on the retrieved physical constraint data and the retrieved image quality data, utilizing the programmable data processor;

calculating a microlens processing tool specification data based on the calculated microlens specification data;

manufacturing a microlens processing tool based on the calculated microlens processing tool specification data

manufacturing a microlens sheet utilizing the microlens processing tool;

inputting a digitized image into a retrievable storage medium;

retrieving the digitized image into a programmable data processor;

formatting the digitized image into a pixel array based on the calculated microlens specification data;

outputting the pixel array to a printing device;

printing the outputted pixel array on a printable medium; and

27        displaying the printed outputted pixel array through the

28  microlens sheet.


1  2.   A method according to claim 1, wherein the physical

2  constraint data includes a thickness constraint data.


1  3.   A method according to claim 1 wherein the step of

2  calculating a microlens specification data uses ray tracing.


1  4.   A method according to claim 1 wherein the image quality data

2  is a subjective data having a scalar value corresponding to a

3  subjective image quality criterion.


1  5.   A method according to claim 1 wherein the physical

2  constraint data includes a data describing a performance

3  characteristic of an output device for carrying out the step of

4  printing the outputted pixel array on a printable medium.


1  6.   A method according to claim 1 wherein the step of forming a

2  microlens sheet utilizing the microlens processing tool forms the

3  microlens sheet with an ink-receptive surface.


1  7.   A method according to claim 7 wherein the printable medium

2  is the ink receptive surface.